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November 2018

## Valuing biodiversity and reversing its decline by 2030

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## THE REPORT SHOULD BE CITED AS FOLLOWS

Rayment M., Arroyo A., Baldock D., Becerra G., Gerritsen E., Kettunen M., Meredith S., Underwood E., and Tucker G. (2018) Valuing biodiversity and reversing its decline by 2030, IEEP policy paper.

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## ACKNOWLEDGEMENTS

We gratefully acknowledge helpful reviews and comments from:

Ariel Brunner from BirdLife Europe; Michel Edouard from the French National Center for Scientific Research (CNRS); Hilde Eggermont from the Belgian Biodiversity Platform/BiodivERsA Partnership; Helmut Gaugitsch from the Environment Agency Austria (Umweltbundesamt GmbH); Onno Knol from the Dutch Environment Assessment Agency (PBL); Manuel Lago from the Ecologic Institute

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# EXECUTIVE SUMMARY

Halting the loss of biodiversity is – and should remain - an important target of EU policy. However, the EU did not meet this headline target by 2010, as originally planned, nor will it meet it by 2020.

We argue that the EU will not halt the loss of biodiversity until a commitment to do so receives adequate buy-in from outside the biodiversity sector. Defining a future target should therefore reflect the need for the value of biodiversity and ecosystems to be recognised across the economy and society, and to be taken into account across all economic sectors and areas of policy.

To achieve this, we recommend that action is needed in six main areas: Building a social movement to halt biodiversity loss; stepping up action to implement existing EU policies; strengthening and reforming EU policy frameworks; making the EU budget work for biodiversity; increasing EU action to tackle global biodiversity loss; and supporting EU action through better knowledge and evidence. Although these overarching priorities resemble those in the EU's current biodiversity strategy, we argue that achieving them will require a significant step up in commitment, ownership and resources – and therefore represents anything but a business as usual scenario.

We argue that much of the failure to halt biodiversity loss to date stems from a failure in implementation, and that we need to redouble efforts to deliver against previous targets and commitments rather than abandoning them. We also provide an analysis of why the targets to date have not been met and what we need to do differently; as well as call for new reforms and initiatives in some areas.

Recognising the value of biodiversity and ecosystems - and building a movement to address their loss – requires the commitment of Europe's people. We therefore urge all EU citizens and their representatives in the European Parliament to raise their voices behind this urgent challenge. We need to unite people across party lines to build momentum for change, in a similar way as is happening for climate change. The ideas in this paper would go a long way to end two decades of EU failure to prevent biodiversity loss, and to usher in a new decade of restoration.



# 1 Status of biodiversity in Europe and progress on the EU biodiversity strategy

*Halting the loss of biodiversity is an important goal of EU policy, but a target neither met by 2010, as originally planned, nor going to be met by 2020.*

Biodiversity conservation has been an important policy goal of the EU for forty years, starting with the adoption of the Birds Directive in 1979, followed by the ground-breaking Habitats Directive in 1992, and by subsequent efforts to take account of biodiversity in a range of EU policies. The EU has also been an active party to the UN Convention on Biological Diversity (CBD) since its adoption in 1992. In line with CBD commitments, in 2001 the EU Sustainable Development Strategy established for the first time an EU-wide target to halt biodiversity loss by 2010<sup>1</sup>.

After the failure to meet the 2010 target, the EU Biodiversity Strategy to 2020 set a new target to halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and to restore them where feasible, while stepping up the EU contribution to averting global biodiversity loss<sup>2</sup>.

Protecting and enhancing biodiversity is very closely linked to other EU policies, such as, for example, agriculture, fisheries, regional development and the internal market, and is seen to play an important role in supporting EU strategic objectives for a resource efficient and climate resilient economy and for innovation, business growth and job creation. Meeting biodiversity goals will therefore play a crucial role in supporting the EU's objectives across the economy and society,

Nonetheless, the EU is set to fail to meet its 2020 target to halt biodiversity loss. The mid-term review of the 2020 Biodiversity Strategy concluded that, although there has been progress in many areas, the loss of biodiversity and ecosystem services is continuing, such that the EU will miss its overall headline target and each of the six more specific targets that underpin it (Box 1)<sup>3</sup>. A recent IPBES regional

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<sup>1</sup> European Commission (2001) A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development. Communication from the Commission. COM(2001)264 final, [https://ec.europa.eu/europeaid/communication-commission-sustainable-europe-better-world-european-union-strategy-sustainable\\_en](https://ec.europa.eu/europeaid/communication-commission-sustainable-europe-better-world-european-union-strategy-sustainable_en)

<sup>2</sup> European Commission (2011) Our life insurance, our natural capital: an EU biodiversity strategy to 2020. Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions. COM(2011) 244 final, [http://ec.europa.eu/environment/nature/biodiversity/strategy/index\\_en.htm](http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm)

<sup>3</sup> European Commission (2015) The Mid Term Review of the EU Biodiversity Strategy to 2020. Report from the Commission to the European Parliament and the Council. COM (2015) 478 final, [http://ec.europa.eu/environment/nature/biodiversity/strategy/index\\_en.htm#mid](http://ec.europa.eu/environment/nature/biodiversity/strategy/index_en.htm#mid)

assessment on the state of biodiversity and ecosystems in the European region confirmed this conclusion<sup>4</sup>.

*Table 1: The EU is failing to meet its six 2020 Biodiversity Strategy targets*

Source: EC (2015) Mid-term Review of the EU Biodiversity Strategy to 2020

*Target 1: By 2020, the assessments of species and habitats protected by EU nature law show better conservation or a secure status for 100 % more habitats and 50 % more species.*

There has been only a slight increase in the number of species and habitats in favourable conservation status; many remain in unfavourable status and some continue to decline; challenges are to complete the Natura 2000 marine network, ensure effective management of Natura 2000 sites and secure necessary finance for management.

*Target 2: By 2020, ecosystems and their services are maintained and enhanced by establishing green infrastructure and restoring at least 15 % of degraded ecosystems.*

There has been some progress in policy and knowledge, and some restoration actions, but this has been insufficient to halt the degradation of ecosystems and their services; plans for restoration and green infrastructure need to be developed and more needs to be done to halt the loss of biodiversity outside the Natura 2000 network. Natural capital continues to be invisible in national accounting and reporting.

*Target 3: By 2020, the conservation of species and habitats depending on or affected by agriculture and forestry, and the provision of their ecosystem services show measurable improvements.*

Farmland species and habitats continue to decline and more needs to be done to use the EU's Common Agricultural Policy (CAP) to support biodiversity; the conservation status of forest habitats and species covered by EU nature legislation is not improving and knowledge of the status of forest habitats outside Natura 2000 is limited. Forest management plans are greatly under-used.

*Target 4: By 2015, fishing is sustainable. By 2020, fish stocks are healthy and European seas healthier. Fishing has no significant adverse impacts on species and ecosystems.*

Much progress has been made in setting the EU framework for sustainable fisheries, and for achieving good environmental status under the EU's Marine Strategy Framework Directive (MSFD), but implementation has been insufficient; marine species and ecosystems face multiple pressures and continue to decline.

*Target 5: By 2020, invasive alien species (IAS) are identified, priority species controlled or eradicated, and pathways managed to prevent new invasive species from disrupting European biodiversity.*

IAS remain a fast-growing threat to biodiversity; progress has been made in putting the policy framework in place. Implementation needs to speed up.

*Target 6: By 2020, the EU has stepped up its contribution to avert global biodiversity loss.*

Global biodiversity continues to decline. The EU has increased resources for global biodiversity and taken initial steps to address indirect drivers of biodiversity loss. Too little is being done to reduce the negative impacts of EU consumption on biodiversity.

European policy and decision-makers are increasingly acknowledging that time is running out to address the risks and drivers of biodiversity loss. For example, the French government is seeking



international support to agree on a similarly strong global legal framework on biodiversity as on climate change<sup>5</sup>. Moreover, delivery on biodiversity will be critical to the EU's achievement of the Sustainable Development Goals (SDGs)<sup>6</sup>. Analyses showed that nearly 30% of the SDG targets have a non-trivial dependency on intact natural ecosystems<sup>7</sup> and services such as provision of food and water, and habitat and biodiversity maintenance are critical to the achievement of multiple goals<sup>8</sup>.

The EU therefore needs to establish a post-2020 EU biodiversity framework that is ambitious and comprehensive, yet credible and achievable. This paper gives some suggestions about the building blocks on which such a framework could be based. It is built on a review of publicly available evidence and a consultation with a select number of biodiversity professionals from national environmental assessment agencies, think tanks and NGOs.

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<sup>4</sup> Such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), 2018, Regional assessment report on biodiversity and ecosystem services for Europe and Central Asia, <https://www.ipbes.net/assessment-reports/eca>

<sup>5</sup> See for example the note from the French government to the EU Environment Council of 25 June 2018 on achieving ambitious results at COP 15 of the Convention on Biological Diversity (CBD) in 2020 [http://www.consilium.europa.eu/register/en/content/out?&typ=ENTRY&i=ADV&DOC\\_ID=ST-10120-2018-INIT](http://www.consilium.europa.eu/register/en/content/out?&typ=ENTRY&i=ADV&DOC_ID=ST-10120-2018-INIT)

<sup>6</sup> CBD, FOA, World Bank, UNEP and UNDP (2016) Technical note on biodiversity and the 2030 agenda for sustainable development, [http://www.undp.org/content/dam/undp/library/SDGs/English/Biodiversity\\_2030\\_Agenda\\_Technical\\_Note.pdf](http://www.undp.org/content/dam/undp/library/SDGs/English/Biodiversity_2030_Agenda_Technical_Note.pdf)

<sup>7</sup> Conservation International Submission to the CBD in Response to CBD Notification 2017-052 on Preparations of the Post-2020 Strategic Plan, September 2017, <https://www.cbd.int/doc/strategic-plan/Post2020/CI.pdf>

<sup>8</sup> Wood, S. L.R., Jones, S., Johnson, J.A., Brauman, K.A., Chaplin-Kramer, R. et.al. 2017. Distilling the role of ecosystem services in the Sustainable Development Goals. Ecosystem Services, Volume 29, Part A, February 2018, Pages 70–82. DOI: 10.1016/j.ecoser.2017.10.010, <https://www.sciencedirect.com/science/article/pii/S2212041617300207>

## 2 Drivers and deterrents of EU biodiversity loss

IEEP has assessed the main pressures that are causing ongoing declines in biodiversity and ecosystem service, and the degree to which these are being addressed by policies (see Annex 1, summarised in Table 1). This suggests that the main problems relate to policy implementation, although there are also some important gaps in the policy framework.

Recent experience indicates that efforts to halt biodiversity loss are currently insufficient in all areas and that action needs to be stepped up across the board. All of the six 2020 target areas remain relevant in the period to 2030 and are likely to continue to play an important role in efforts to halt biodiversity loss. However, we might question whether – without a major increase in commitment and resources - the current broad-based approach can be effective or whether there is a need to prioritise actions.

*Table 2: The principal threats to biodiversity and ecosystem services in the EU, the legislative instruments addressing them and their implementation problems and gaps*

Source: internal IEEP assessment of threats reported in mid-term review of EU Biodiversity Strategy and EEA State of Nature Report, based on reporting under the Birds- and Habitats Directives. See Annex 1 for assessment details.

**Green = Generally satisfactory, no significant weaknesses / gaps / problems**

**Amber = Some weaknesses / gaps/problems**

**Red = Major weaknesses/gaps/problems**

Main threats	Most important existing EU legislative instruments	Gaps and weaknesses in the instruments	Implementation issues
Agricultural abandonment or intensification of semi-natural grasslands and other semi natural habitats	EU Birds- and Habitats Directives (BHDs), CAP Natural Handicap payments, CAP Pillar 1 greening measures, CAP Rural Development Programmes' (RDP) Agri-environment schemes	Amber	Red
Intensive management of arable and improved grasslands, and loss of marginal non-farmed habitats	CAP cross-compliance, Pillar 1 greening measures: RDP Agri-environment schemes	Amber	Red
Logging or old-growth forest and/or intensive forest management	BHD, RDP forest measures	Red	Red
Pollution of rivers and lakes, and in-river and marginal habitat changes; river impoundments etc.	BHD & EU Water Framework Directive (WFD)	Green	Amber
Airborne eutrophication of sensitive habitats due to N deposition	EU National Emissions Ceilings Directive (NECD)	Green	Red
Marine pollution	MSFD, WFD, BHDs + others?	Amber	Amber
Marine seabed impacts from fishing and extractive industries	BHD, MSFD, CFP, MSP Directive	Amber	Red
Habitat loss and fragmentation from built infrastructure	EU Strategic Environment Assessment Directive (SEA), EU Environment Assessment Directive (EIA) and BHD protection of Natura 2000	Amber	Amber
Invasive Alien species	IAS Regulation	Green	Amber
Illegal killing & unsustainable exploitation	BHD & EU Common Fisheries Policy (CFP)	Amber	Amber
Disturbance due to recreation etc.	BHD & EIA	Amber	Red
Climate change adaptation	Above instruments	Mixed	Mixed

### 3 Do we need a new headline target and, if so, what should it cover?

*Halting biodiversity loss remains a relevant target and vital policy priority for the EU; to achieve this, the value of biodiversity to society and the economy must be fully recognised and reflected in decisions.*

After the EU's failures to halt biodiversity loss to date, simply postponing the target further to 2030 risks a loss of credibility. However, a target to halt biodiversity loss remains the right thing to do, and is consistent with the dedicated global target towards 2030 under the SDGs (Target 15); the EU needs to demonstrate it can halt biodiversity loss within its own territory if it is to be a respected and influential player globally. We need to understand why the previous targets have not been met and to change the approach sufficiently, where this is necessary, to address these failures.

The EU's failure to halt biodiversity loss is linked to insufficient value being placed on biodiversity across society and the economy as a whole. EU biodiversity targets and strategies to meet them have insufficient ownership beyond the biodiversity community. If biodiversity loss is to be halted, there is a need for action to be driven by a broader social movement and a wider recognition of the need to take account of the value of biodiversity in decision making across the economy. A renewed vision and target could reflect this – for example:

*“By 2030 the value of biodiversity and ecosystems will be recognised across the economy and society, and taken into account across all economic sectors and areas of policy, leading to the loss of biodiversity and ecosystem services being halted.”*

Continuing to show the value of natural capital and ecosystem services to people and the economy, in line with the Biodiversity Strategy to 2020, will be important in supporting the EU's efforts to halt biodiversity loss. It will also be important for the EU to maintain its commitment to halting the loss of biodiversity, as evidenced by the conservation status of species and habitats, for a number of reasons:

- Biodiversity is widely recognised as having intrinsic value. We value species and habitats in their own right, and have an ethical duty to protect them, whether or not they deliver services to society;
- We have an incomplete understanding of the natural processes and functions of ecosystems, and the role of biodiversity in maintaining them. A precautionary approach therefore points to the need to halt the loss of biodiversity as an important component of natural capital;
- There is a risk that focusing too much on accounting for natural capital and ecosystem services will focus efforts on protecting those assets and services that we can easily measure and value, at the expense of those that we cannot; and
- The EU has made international commitments to halt biodiversity loss under the CBD and SDGs. For example, SDG 15 refers explicitly to halting biodiversity loss in itself, as well as addressing the loss of ecosystem services<sup>9</sup>.

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<sup>9</sup> United Nations (2015) Transforming our world: the 2030 Agenda for Sustainable Development. [http://www.un.org/ga/search/view\\_doc.asp?symbol=A/RES/70/1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E)

***Within a headline target, there is a need for clear and SMART targets relating to particular outcomes for biodiversity and ecosystem services.***

An overall headline target to halt biodiversity loss should continue to be underpinned by more specific targets relating to key aspects of the EU biodiversity agenda.

The EU 2020 biodiversity strategy specified a range of targets and related indicators. Some of these related to biodiversity impacts (such as the overall headline target to halt biodiversity loss, and Target 1 to improve the status of species and habitats covered by EU nature legislation). Others were more focused on the policy process and its outputs, such as Target 3 (maximise agricultural areas covered by biodiversity-related measures under the CAP). However, these targets have been difficult to track and assess due to the weaknesses in Member States' monitoring and reporting for biodiversity. For example, their monitoring of and reporting on the impact of their rural development programmes rarely includes assessments of the overall impacts on biodiversity.

Halting biodiversity decline will need to be monitored and demonstrated through robust indicators that demonstrate that the conservation status of species and habitats has stabilised and is beginning to improve. 'SMART' targets<sup>10</sup> help to drive the achievement of measurable outcomes for biodiversity and ecosystem services. Target 1 of the current strategy, for example, to achieve a significant and measurable improvement in the status of all species and habitats covered by EU nature legislation, quantifies progress in terms of the growth in the number of habitats and species assessments showing improved conservation status. Other targets could be 'zero extinctions', no net loss of Annex I habitats, no decline in an index of specialist species, and/or no more than a 10% decline in common generalist species.

As well as targets for biodiversity outcomes, it will also be important to have achievable intermediate targets, to measure progress, promote accountability, and provide opportunities to report on success instead of failure. Output-based targets, such as those relating to coverage of protected areas or areas of land in environmental schemes, are useful in showing progress towards halting biodiversity loss, particularly since conservation actions take time to have effect. They need to be designed carefully to assess the effectiveness of biodiversity actions and not just the broad level of action undertaken. More could be done to break the targets down into achievable, science-based targets focused on specific stakeholders, economic sectors and geographic areas, such as the food chain, finance sector, cities and regions. In this way, an overall target to achieve no net loss or net gain in biodiversity could be translated into targets at a number of different levels. Such a 'green deal' model has been shown to be effective in some MS, encouraging and empowering stakeholders and sectors to gather behind a shared challenge.

In the global context, where monitoring of the EU regime's overall impact on biodiversity is more difficult, measurable targets could be set for concrete EU contributions to support the global goal, e.g. the percentage of EU external assistance for biodiversity conservation outside the EU.

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<sup>10</sup> Acronym for Specific, Measureable, Attainable, Relevant and Time-bound

## 4 Policy options to achieve the targets

In order to halt the loss of biodiversity by 2030, we suggest that policy action is needed in six main areas:

- Building a social movement to halt biodiversity loss;
- Stepping up action to implement existing EU policies;
- Strengthening and reforming EU policy frameworks;
- Making the EU budget work for biodiversity;
- Increasing EU action to tackle global biodiversity loss; and
- Supporting EU action through better knowledge and evidence.

### 4.1 Building a social movement to halt biodiversity loss

The central argument of this paper is the need for a broader and deeper shared societal recognition of the value of biodiversity to our development and well-being. We need to build a much stronger social movement to halt biodiversity loss, based on widespread recognition of its value. Building such a movement depends on engaging effectively with people, recognising their values and interests and using appropriate language. Public interest in man-made climate change and urgency to address it only increased when the scientific evidence was reframed in social justice terms. We need to recognise and harness the natural instinct for people to engage with and value nature, while recognising that they may be disengaged by the technical language of biodiversity, ecosystems and natural capital. If we are to achieve the much-needed step change in our commitment to halt biodiversity loss, and a substantial increase in actions and resources, achieving a much wider buy-in from decision makers and stakeholders across the economy and society is critical. This could be encouraged through action to:

- Inspire people about nature and biodiversity in order to deliver a social movement for change;
- Recognise the diversity of people's values and interests, enabling genuine stakeholder dialogue, while using appropriate language and methods of engagement to build consensus and motivate action;
- Reconnect an increasingly urbanised society with nature;
- Build the commitment of the private sector, harnessing its energy and resources; and
- Focus on the links between nature and major societal challenges, notably the enhancement of human health and wellbeing.

#### *Inspiring people with a positive vision and successes*

In order to reach a wider constituency, biodiversity policy needs to present a more positive vision and more engaging targets. Much of the argument for action for biodiversity so far has been rather negative, focusing on halting its decline rather than enabling its recovery, and putting forward technocratic targets (for example relating to protected area coverage) that are not understandable or engaging for most people. There is a need for more positive engagement to inspire people about biodiversity and to promote a more exciting and positive vision for its conservation:

- More could be done to celebrate the beauty of nature and inspire and engage people in helping to conserve it, as a precondition to understanding the importance of biological diversity;
- Positive messages can be conveyed by celebrating the success of achievements in the biodiversity arena, such as the still growing Natura 2000 network, the contribution of the LIFE instrument to restoration, local successes in reversing the loss of certain species and habitats, and many more. If better articulated, these achievements have the potential to inspire many

- people, in Europe and beyond. The building of social consensus about the need to address the decline of pollinators and to tackle the impacts of plastics on marine life are good examples;
- There would be benefits in working more positively with farmers and land managers to harness their skills and energy in conserving species and habitats, reducing the reliance on regulations and rules-based land management schemes. Creating the right incentives, backed by knowledge and support systems, can help to induce long-term behavioural change;
  - Communications, engagement, public events and initiatives to promote volunteering and citizens' science could all play an important role in influencing the way that society values biodiversity. There would be merit in a target focusing on citizens' involvement and a pro-biodiversity social movement.

Much of this effort needs to be at Member State and local level, but there is also a need for the EU to support it with leadership and resources, such as through targeted EU financial support, encouraging co-operation and knowledge sharing activities.

### ***Recognising diverging interests, and ensuring genuine stakeholder dialogue***

A second, related need is to recognise more explicitly that conserving biodiversity on the scale required involves significant real-life changes touching directly on the interests of a wide range of stakeholders. Consequently, more proactive mechanisms and resources are required to give people a voice and role in any future strategy. Too often stakeholders with mutual interests end up in polarised political standoffs not benefitting either side, as illustrated by the conflicts triggered by the return of large carnivores in many places they had been extinct for decades or even centuries. At EU and national level there is much experience in stakeholder management, which needs to be harnessed in designing of a future strategy, aided by better exchange of best practice and funding. A wealth of examples across the EU demonstrates such approaches are not only possible, but often also bring a great sense of shared ownership and even pride among those involved, which is critical to maintaining long-term support. Therefore, a dedicated mechanism or process could be established to raise awareness of and mainstream such examples across the EU.

### ***Reconnecting society with nature***

The EU – like the rest of the world – is becoming increasingly urbanised. UN projections<sup>11</sup> suggest that the share of the population living in urban areas in Europe will rise from 73% in 2014 to more than 80% by 2050. As a result, much of the population is increasingly disconnected from natural areas. Urban green infrastructure offers opportunities for biodiversity while delivering important ecosystem services to citizens. There is value in expanding the urban green infrastructure network (with a dedicated focus on the biodiversity conservation benefits), establishing dedicated initiatives connecting the urban population to wild nature, raising awareness and appreciation of the inherent value of biodiversity, and understanding the social and economic value of ecosystem services. At the same time, initiatives to facilitate people's access to, and enjoyment of nature outside urban zones remain a priority.

### ***Engaging the private sector***

Much more needs to be done to engage businesses in efforts to halt biodiversity loss. Many of the pressures on biodiversity result directly or indirectly from the activities of businesses, and at the same time businesses are important agents for rapid positive change. There is huge untapped potential to

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<sup>11</sup> United Nations (2014) World Urbanisation Prospects – 2014 revision.

involve business in efforts to halt biodiversity loss, going beyond compliance with existing legislation to engage the private sector as partners in positive action.

The EU institutions could consider how to build on the EU Business @ Biodiversity Platform<sup>12</sup> to deliver a much larger movement for change across the EU's business community, with strong representation across all sectors and member states, working towards specific commitments and targets.

Three priorities for engagement include:

- Building a commitment among businesses to measure their net impact on biodiversity, and to work towards achieving biodiversity net gain at corporate and sector level. This should include commitment to measure, raise consumer awareness of and reduce the international effects of production and consumption decisions on biodiversity (see Section 4.5);
- Developing new and innovative solutions to enhance biodiversity and prevent its loss; and
- Working with the financial sector, to ensure that financing decisions help to protect rather than threaten biodiversity, and to harness private finance for biodiversity conservation and restoration.

These three priorities align with the three work streams of the EU Business @ Biodiversity Platform (natural capital accounting, innovation and finance). However, a massive increase in business engagement, commitment and resources will be needed to halt biodiversity loss by 2030.

### ***Linking biodiversity and public health***

Nature and biodiversity have been shown to have positive impacts on the physical and mental health of EU citizens<sup>13</sup>. The EU faces a major public health challenge with increasing levels of obesity and mental ill-health, spiralling costs of health care, and increasing constraints on financial resources in the health sector. A major challenge and opportunity in halting biodiversity loss lies in demonstrating and acting on the positive linkages between nature and public health, for the benefit of people and biodiversity alike. This requires better use of evidence of the health benefits of nature in arguments to conserve and restore biodiversity, including by increasing health sector and public awareness of physical and mental health benefits. Access to nature needs to be improved in many areas, including through appropriate infrastructure as well as through events and initiatives, such as volunteering schemes. We need to find ways of integrating nature-based solutions into health services, such as through designing and prescribing nature-based interventions for physical and mental health, and mainstreaming them into public health services. Knowledge sharing and guidance at EU level would help to support Member State action in these areas.

## **4.2 Stepping up action to implement existing EU policies**

Many of the policies with the potential to halt the loss of biodiversity in the EU are already in place. However, implementation and enforcement need to be considerably bolder and more ambitious, and

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<sup>12</sup> Website EU Business @ Biodiversity Platform, [http://ec.europa.eu/environment/biodiversity/business/index\\_en.htm](http://ec.europa.eu/environment/biodiversity/business/index_en.htm)

<sup>13</sup> ten Brink P., Mutafoglu K., Schweitzer J.-P., Kettunen M., Twigger-Ross C., Kuipers Y., Emonts M., Tyrväinen L., Hujala T., Ojala A. (2016) The Health and Social Benefits of Nature and Biodiversity Protection. A report for the European Commission (ENV.B.3/ETU/2014/0039), Institute for European Environmental Policy, London / Brussels



financial resources need to be scaled up to meet the implementation challenge. Action needed in this area includes:

- Fully implementing the Birds and Habitats Directives, including the Natura 2000 network;
- Stepping up efforts to enforce EU environmental legislation and cross compliance;
- Implementing policies for the marine environment;
- Strengthening and prioritising commitments for ecosystem restoration; and
- Implementing legislation on invasive alien species.

### ***Fully implementing the EU Birds and Habitats Directives, including the Natura 2000 network***

Full implementation of the Natura 2000 network lies at the heart of the EU's efforts to halt biodiversity loss, and would deliver valuable ecosystem services to the EU and its economy. The EU and its Member States have invested great efforts and resources in establishing the network, which now covers more than 18% of the EU land area. While this has been a major achievement, much more work needs to be done to ensure that the network is properly managed and resourced, in order to achieve the favourable conservation status of the habitats and species it protects. For example, the State of Nature report<sup>14</sup> found that only 20% of habitats and 28% of species protected by the nature directives had a favourable or improving status.

Although some further effort is needed to complete the network, especially in the marine environment, the EU's principal priority should be to redouble efforts to achieve the right management of sites already designated as Natura 2000. This depends on completing management plans for sites and implementing the actions needed to deliver favourable conservation status. One of the constraints in achieving this is the financial resources available for implementation. The recent nature directives fitness check<sup>15</sup> found that there continues to be a significant financing gap, with expenditures by EU Member States needing to increase in order to implement the measures required to achieve favourable conservation status. Further discussion on funding appears in Section 4.4 below.

Recently a growing number of stakeholders, recognising the failure to halt biodiversity loss and extinction at a sufficient pace, is calling for more a more ambitious global target for protected areas. The Half-Earth project, championed by renowned ecologist E. O. Wilson, proposes that half of the earth should be set aside as wild and human-free nature reserves. While this proposal appeals to a range of stakeholders, scholars and practitioners believe it does not sufficiently address the root of the current biodiversity crisis and potentially leading to a range of perverse effects. Since the 1970s, nature protection in the EU has been increasingly based on a vision of sustainable development in which people, nature and the economy should strike a balance rather than be segregated, and this is reflected in the objectives of the Birds and Habitats Directives and the Natura 2000 network. Given the nature of land use in the EU and of the pressures facing biodiversity, it is our view that the effectiveness of Natura 2000 and wider nationally or regionally protected area networks would be

<sup>14</sup> EEA (2015) EEA Technical report No 2/2015 State of nature in the EU. Results from reporting under the nature directives 2007–2012. <http://www.eea.europa.eu/themes/biodiversity>

<sup>15</sup> European Commission (2016) Evaluation Study to support the Fitness Check of the Birds and Habitats Directives – final report, [http://ec.europa.eu/environment/nature/legislation/fitness\\_check/docs/study\\_evaluation\\_support\\_fitness\\_check\\_nature\\_directives.pdf](http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/study_evaluation_support_fitness_check_nature_directives.pdf)

enhanced more through improved protection and management of existing sites, supported by conservation measures in the wider landscape, than from further significant expansion of the network.

### ***Regulatory enforcement of pollution and land and water use policies***

Major biodiversity losses continue to occur through a variety of pressures, including airborne nitrogen deposition caused by ammonia emissions from agriculture; agricultural land- and water management; infrastructure development and pesticide use. Stronger enforcement of existing EU regulations in these spheres, such as the National Emissions Ceilings, Water Framework, Nitrates and Sustainable Use of Pesticides Directives, including through CAP measures, would reduce the impacts and costs of pollution on the natural environment and human health. Greater enforcement action is also needed to prevent unsustainable land and water use, such as destruction of high-nature value grasslands and over-abstraction of water. One of the main recommendations of the recent fitness check of the EU Nature Directives was for stronger legal enforcement to support implementation of pollution control and related legislation<sup>16</sup>. Given constraints on public expenditure, it is more justifiable to focus spending on environmental land management schemes on delivering higher environmental quality and public benefits rather than rewarding farmers and land managers for practices that merely avoid pollution or environmental damage. Better enforcement of environmental regulations could help both to reduce pressures on biodiversity and enhance the resources available for restoring habitats, species and ecosystems.

### ***Strengthening and prioritising commitments for ecosystem restoration***

Restoration of degraded ecosystems will continue to be important in efforts to halt biodiversity loss, in line with international commitments under the CBD as well as EU internal objectives. This requires a serious and dedicated commitment by the EU and Member States following the lack of progress against the current 2020 target to restore 15% of degraded ecosystems. One of the reasons for the lack of progress to date has been competition for scarce resources with other priorities. There has been slow progress in specifying plans for restoration at Member State level; the mid-term review of the 2020 Biodiversity Strategy found that only two countries had developed the required Restoration Prioritisation Frameworks. To be successful, future restoration efforts and targets need to be specific, measurable, achievable, realistic and time-bound, as well as being complementary to other conservation measures. Most importantly, restoration plans could usefully prioritise actions that deliver directly on the conservation objectives for species and habitats protected under the Birds and Habitats Directives.

### ***Implementing marine policies***

Recent years have seen a number of significant positive changes in the marine policy framework, in particular through designation of marine Natura 2000 sites, reform of the Common Fisheries Policy to focus on achieving maximum sustainable yield, and transposition of the Marine Strategy Framework Directive and the Maritime Spatial Planning Directive. However, implementation still shows significant gaps and marine biodiversity continues to decline. In particular, progress in addressing the challenge of ending unsustainable fisheries, still the main marine impact on biodiversity, has been weakened by back-tracking on political commitments to reduce overfishing and bycatch. Where action is being taken, some positive outcomes are being observed, including recovery in some commercial fish species. There is a need to build on these opportunities after 2020, by focusing on effective policy

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<sup>16</sup> European Commission, 2016

implementation and enforcement and setting targets not just for fisheries but for marine biodiversity more widely.

### ***Implementing legislation on Invasive Alien Species***

Regulation (EU) 1143/2014 on invasive alien species (IAS), which came into force in 2015, provides a policy framework to implement Target 5 of the EU 2020 Biodiversity Strategy. Action is now needed to implement the measures required to control and eradicate IAS across the EU. Member States will need to report by June 2019 on their action plans to address priority pathways of introduction of IAS into their territories and their IAS surveillance and rapid eradication systems. This will be a key moment to assess policy impact and what gap lies between the most and least ambitious Member States. The Regulation also calls for coordinated action across the EU to tackle IAS that are already established, and this dialogue is only just beginning.

### **4.3 Strengthening and reforming EU and national policy frameworks**

There are several key policy areas where much more could be done to develop enabling policy frameworks and/ or plans to implement them, both at EU level and in the Member States. Here, the challenge is even greater because it is a matter of developing new approaches, not simply implementing existing law. Examples include:

- Further reforming the CAP;
- Integrating biodiversity into forest management plans;
- Defining and implementing plans for green infrastructure and ecosystem restoration;
- Improving coherence between the climate/energy and biodiversity agendas; and
- Defining EU policy on no net loss of biodiversity.

#### ***Further reforming the CAP***

Successive reforms of the CAP have provided many of the tools required to begin to reverse the decades of decline in biodiversity in agriculture across the EU. However, action for biodiversity through the CAP remains insufficient in scale and effectiveness<sup>17</sup>. Many agri-environment schemes are insufficiently focused on delivering outcomes for biodiversity, and monitoring and evaluation are often inadequate. Moreover the CAP could do more to transition from a control model of agriculture, dependent on external inputs often detrimental to biodiversity, such as pesticides and artificial fertilisers, to a more resilient, circular and nature-based model. Reversing biodiversity loss will require further reform to focus the entire CAP budget on the delivery of public goods, including biodiversity and ecosystem services. There is a need for a much stronger performance framework, defining and measuring the outcomes of CAP expenditures, and specifying biodiversity targets and indicators based on Union objectives for the environment. There is a need for targets and indicators which focus more on demonstrating outcomes, rather than merely measuring activities and outputs.

#### ***Better integrating Biodiversity into Forest Management***

Reversing the decline of biodiversity in forests, which account for 43% of the EU land area, remains an important priority. Target 3B of the 2020 Strategy called for Forest Management Plans to be in place for all publicly owned forests and for larger forest holdings receiving EU Rural Development funding, and for these plans to include measures to conserve species and habitats, so as to bring about a measurable improvement in their conservation status. The mid-term review of the EU biodiversity strategy in 2015 found no significant progress in this area, with only a 2% increase in favourable conservation status of forest habitats of European importance and still 80% of habitats found to have

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<sup>17</sup> For a more detailed exploration on EU food- and agriculture policy after 2020 please see the separate Think 2030 paper *'Feeding Europe: Agriculture, sustainability and healthy diets'*

an unfavourable status. Only a subset of Member States and regions choose to use CAP support for forests, so the policy target has had little influence on forest management.

While many EU forests have management plans, there is a need for a more rigorous and consistent approach to monitoring, planning, implementing and enforcing biodiversity measures. As the EU lacks a strong forest policy, responsibility is left to Member State or regional/local governments, which in many cases do not take it. For example, there are still too many cases where the forest management plan does not sufficiently integrate Natura 2000 conservation objectives and measures, or Natura 2000 planning has no influence on actual forest management decision making. In the absence of stricter regulation, EU-wide co-operation and guidance would help to achieve this, backed by regular monitoring and reporting of progress and outcomes. A case could also be made for mandatory conditions for biodiversity conservation within management plans for forests receiving CAP support.

### ***Developing Plans for Green Infrastructure***

Outside Natura 2000, more needs to be done to protect and enhance biodiversity and ecosystems in the wider marine and terrestrial environment, including maintaining remaining natural elements in the landscape and restoring degraded ecosystems. The ongoing challenge of reversing declines in particular species and habitats in the face of multiple threats, as well as the need to build resilient ecosystems more adaptable to climate change, call for new, more integrated approaches to conservation. Rather than primarily reacting to species declines, often through micro-management, there is also a case for a more forward looking, proactive approach to restore and sustainably manage ecosystems at the landscape scale where there is a clear, evidence-based need.

The EU Green Infrastructure Strategy<sup>18</sup> aims to ensure that the protection, restoration, creation and enhancement of green infrastructure become an integral part of spatial planning and territorial development, so delivering a wide range of ecosystem services. This Strategy now needs to be translated into plans for green infrastructure across the EU, building on localised examples of good practice. Evidence-based spatial planning could be used to create ecological networks that protect and enhance biodiversity across land and sea, with targeted restoration of degraded ecosystems contributing to these strategic goals.

While much of this action must take place at Member State, regional and local level, EU policy can help to lead the way, developing evidence and guidance and helping to share good practice. EU funds could do more to support strategic investment in green infrastructure where this proves to have European added value, helping to ensure that it complements protected areas and contributes effectively to ecological networks.

### ***Defining EU Policy on No Net Loss***

The EU 2020 biodiversity strategy included a commitment to implement an initiative to ensure no net loss of biodiversity and ecosystem services. Progress in this area stalled following resistance in some quarters to biodiversity offsetting, a necessary component of a no net loss initiative. There remains a need for the EU to update and clarify its policy framework in this area. Achieving no net loss remains relevant and essential since ongoing losses of biodiversity are bound to continue, which will require them to be compensated for elsewhere if biodiversity loss is to be halted overall. There is therefore an ongoing question about the level at which no net loss should be set (e.g. the EU, national, regional, local, sectoral, organisational, policy, programme or project level), the measures taken to achieve it, and the metrics applied to ensure it is delivered. While it now seems unlikely that the EU will mandate

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<sup>18</sup> European Commission (2013) Green Infrastructure (GI) – Enhancing Europe’s Natural Capital. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. SWD(2013) 155 final

action to require no net loss (and hence biodiversity offsetting) at the project level, there remains a case for principles and guidance at EU level to promote the concept and its application, in support of overall targets to halt the loss of biodiversity and ecosystems. This could encourage and empower a variety of businesses, organisations, sectors and local administrations to set and implement targets to achieve a net gain in biodiversity. The EU can set an example by taking action to ensure and demonstrate that its own policies and funding result in no net loss (see below)<sup>19</sup>.

### ***Strengthening coherence between renewable energy, biomass and biodiversity policy***

While the shift to renewable resources supports the objective of a low-carbon and circular economy, the rapid growth in their demand poses a range of challenges to biodiversity. Biofuels and biomass inherently rely on living ecosystems and despite significant public and policy attention to prevent perverse effects, still constitute a significant pressure on biodiversity in the EU, especially as policies have encouraged intensification of crop feedstock production and increased wood and residue extraction from forests. Historical saturation of rivers in the EU with hydropower installations has significantly degraded river systems, and has triggered a growing public call to remove the most harmful installations and allow restoration of ecosystems and their services such as fish production. EU energy policies should therefore, as well as pursuing more ambitious demand reduction strategies, focus further renewable energy supply in Europe on technologies compatible with conservation goals (such as solar/wind and better storage) and that any further increase in hydropower supply is not met at the expense of biodiversity.

#### **4.4 Making the EU budget work for biodiversity**

The post-2020 EU budget needs to ensure that the EU's own policies and funds contribute much more effectively to halting rather than perpetuating biodiversity loss. This requires action to:

- Ensure that EU funds do not contribute to biodiversity losses; and
- Deliver more and smarter funding for biodiversity action.

### ***Ensuring EU funds do not contribute to biodiversity losses***

The EU continues to be criticised for implementing policies and funding programmes and projects that have damaged biodiversity. For example, EU funded infrastructure projects have destroyed species and habitats, the CAP has funded damaging agricultural and forestry practices in many areas, and the Common Fisheries Policy has in the past led to the depletion of fish stocks and damage to marine habitats. Whilst policy reforms have reduced the potential for such impacts there is a need to ensure that EU funding does not lead to the loss of biodiversity in future. This can be achieved through rigorous application of biodiversity proofing to EU funded programmes and projects, with the aim of achieving no net loss by systematically applying the EU's common framework and guidance for biodiversity proofing<sup>20</sup>. Where losses of biodiversity are unavoidable, and, after taking all possible steps to avoid or reduce them (in accordance with the mitigation hierarchy), achieving no net loss is dependent on compensatory measures for unavoidable residual losses. While there has been some uptake of the proofing practices in the Member States, this approach is still not systematically used

<sup>19</sup> IEEP, Biotope, eftec and ICF (2016) Supporting the Elaboration of the Impact Assessment for a Future EU Initiative on No Net Loss of Biodiversity and Ecosystem Services.

[http://ec.europa.eu/environment/nature/biodiversity/nnl/pdf/NNL\\_impact\\_assessment\\_support\\_study.pdf](http://ec.europa.eu/environment/nature/biodiversity/nnl/pdf/NNL_impact_assessment_support_study.pdf)

<sup>20</sup> See European Commission guidance documents on biodiversity proofing:

<http://ec.europa.eu/environment/nature/biodiversity/comm2006/proofing.htm>

across the national implementation of all the EU funds. Hence, mainstreaming effective proofing practices seems like the obvious next step.

The no net loss principle could also be applied at the sectoral policy level, for example under the CAP, in order to require that there is no net loss of biodiversity across agriculture or forestry overall. There is already a precedent for this, as existing CAP greening rules require that the proportion of the agricultural area that is permanent grassland should not fall by more than 5% compared to the reference year. While the potential benefits of CAP greening have not been realised<sup>21</sup>, this rule could be refined and developed to introduce a requirement for no-net loss of more biodiverse semi-natural grasslands at a regional or, preferably, local level (complementing existing stricter protection in Natura 2000 sites). Similar no net loss rules could be developed for other semi-natural habitats and species in agriculture and forestry.

### ***Delivering more and smarter biodiversity funding***

Halting biodiversity loss requires more than money, but limited financial resources are constraining effective action in many areas. For example, a substantial funding gap is a major constraint on the effective implementation of Natura 2000. Adoption of the European Commission's recent proposal to significantly increase the LIFE programme's budget will be helpful, but a major funding gap will remain, particularly as cuts are expected in other EU funds such as EAFRD from 2020 onwards. Limits on public funding following the 2009 financial crisis, as well as competition with other spending priorities, have constrained the financial resources available for biodiversity. However, opportunities are being missed to improve the efficacy of existing funds. For example, the last CAP reform in 2013 did little to increase the focus on biodiversity, despite the initial claims for "Greening". Much could be achieved by spending available budgets more wisely, including by focusing the CAP budget on the delivery of public benefits such as biodiversity.

One challenge is that EU biodiversity spending is dependent on an integrated financing model – where a range of existing funds – such as the CAP and EU Structural and Investment Funds (ESIFs) – are used to meet biodiversity objectives. Because these funds were not designed for this purpose, they are often not the ideal instruments to address biodiversity priorities. Building the capacity across the EU to access available finance and to allocate it wisely and effectively is an ongoing challenge. If the EU is to continue to apply the integrated financing model, as proposed in the 2012-2027 Multiannual Financial Framework (MFF) proposal, it will be important to ensure that biodiversity objectives are given sufficient prominence within relevant EU funds, implementing rules and associated monitoring and evaluation systems<sup>22</sup>. As for other issues discussed here, demonstrating the value of biodiversity

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<sup>21</sup> See for example: European Court of Auditors (2017) *Special Report n°21/2017: Greening: a more complex income support scheme, not yet environmentally effective*, <https://www.eca.europa.eu/en/Pages/DocItem.aspx?did=44179>

<sup>22</sup> Kettunen, M., Illes, A., Rayment, M., Primmer, E., Verstraeten, Y., Rekola, A., Ring, I., Tucker, G., Baldock, D., Droste, N., Santos, R., Rantala, S., Ebrahim, N. and ten Brink, P. (2017) *Integration approach to EU biodiversity financing: evaluation of results and analysis of options for the future*. Final report for the European Commission (DG ENV) (Project ENV.B.3/ETU/2015/0014), Institute for European Policy (IEEP), Brussels/London, <https://ieep.eu/publications/integration-approach-to-eu-biodiversity-financing>

and ecosystem services to society is likely to be the key to achieving this. Consideration could be given to ear-marking of funds in particular circumstances where alternative funding sources are lacking.

Enhancing efforts to increase funding at the European level can also be reinforced by a commitment to refine the methodology used for biodiversity-related expenditure tracking<sup>23</sup>, and introduce a target for biodiversity related expenditures, similar to the current 20% target for climate related expenditure. The indicators used to assess the impacts of EU spending on biodiversity could also be strengthened, especially by using more indicators focused on biodiversity outcomes, and not just on outputs.

Another challenge is to broaden the means of biodiversity financing, developing new financing mechanisms such as payments for ecosystem services that encourage businesses and other beneficiaries to invest in restoration and maintenance of ecosystems. Leadership on this will have to come from national and regional authorities, who could better use the growing body of evidence on ecosystem services and currently available EU and national funds to lever other sources of financing. Targeted mechanisms could complement broader, market-based tools such as support for organic farming. However, progress in developing new sources of funding for biodiversity has so far been slow, and it would be unwise to rely on innovative financing models to meet a significant proportion of financial needs in the short term.

An ongoing question is how the burden of halting biodiversity loss should be shared across the EU. While the EU budget cannot be expected to shoulder the whole burden of financing action to halt biodiversity loss, and there is a need for increased funding at Member State level, disparities in the distribution of biodiversity in relation to the financial resources to pay for its conservation mean that there will be a continuing need for burden sharing and co-financing through the EU budget.

The simultaneous failure to meet each of the targets of the EU 2020 biodiversity strategy, as well as limits on the financial and human resources available for biodiversity conservation, raise questions about how to prioritise resources and actions. This suggests the need to target resources, prioritising action for Natura 2000 sites and priority habitats and species, and the post-2020 EU biodiversity regime should explore how to cater for such a need. Further EU-funded research could help to inform how best to target resources to maximise gains for biodiversity and ecosystem services.

#### 4.5 Increasing EU action to tackle global biodiversity loss

The EU can continue and step up its role in efforts to address global biodiversity decline, by:

- Supporting international action through ambitious agenda setting and implementation, in particular through the CBD post-2020 biodiversity framework and the 2030 Sustainable Development Goals;
- Reducing the EU's global footprint on biodiversity; and
- Strengthening links between the biodiversity and climate agendas.

The EU 2020 Biodiversity Strategy represented the EU's contribution to halt global biodiversity loss through the CBD Strategic Plan for Biodiversity 2011-2020<sup>24</sup>. The EU's post 2020 biodiversity strategy

<sup>23</sup> Medarova-Bergstrom, K., Kettunen, M., Illes, A., Baldock, D., Rayment, M., and Hart, K.(2014) Tracking Biodiversity Expenditure in the EU Budget, Part I – Guidance on definition and criteria for biodiversity expenditure in the EU budget, Final Report for the European Commission – DG ENV, Institute for European Environmental Policy, London/Brussels, <https://ieep.eu/publications/tracking-biodiversity-expenditure-in-the-eu-budget>

<sup>24</sup> CBD (2010) Decision X/2. The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets Decision Adopted by the Conference of the Parties to the Convention on Biological Diversity at its Tenth Meeting. <https://www.cbd.int/doc/decisions/cop-10/cop-10-dec-02-en.pdf>

– or equivalent instrument - will represent the EU’s ongoing commitment to halt biodiversity loss, and will therefore need to link clearly to the CBD global agenda.

The CBD Strategic plan for the post 2020 era will be drafted by the SBSTTA<sup>25</sup> in 2019 and adopted at the fifteenth meeting of the Conference of the Parties in 2020. The update will in principle reflect the 2050 Vision as set out in the current plan, as well as the 2030 Agenda for Sustainable Development and other relevant international processes. It will take account of an assessment of progress in achieving the goals and Aichi Biodiversity Targets of the current plan as well as of future scenarios of change. One of the key questions for the global post-2020 agenda remains how to achieve biodiversity integration into societal systems that determine how natural resources are used and therefore underpin the root causes of biodiversity loss (e.g. agriculture, fisheries, forestry, tourism, energy etc.)<sup>26</sup>. To address this the CBD-led discussions on the post-2020 regime have recognised the importance of shifting from treating symptoms (e.g. countering biodiversity loss simply by increasing the designation of protected areas) to evoking more fundamental transformation of the socio-economic system, including changes in behaviour at the levels of producers and consumers, governments and businesses.

With the preparations for the CBD Strategic Plan underway, the EU’s post-2020 biodiversity policy needs to evolve as plans for the CBD strategic plan develop. It will be important for the future EU biodiversity policy framework to be consistent with and contribute fully to the global agenda, and the EU certainly shares the globally identified challenges of changing perceptions and behaviour, and successfully integrating biodiversity conservation as an objective across socio-economic sectors (see Chapters 1 and 2). However, the EU regime will also need to reflect the specific priorities and challenges in the EU context and learn from experience in implementing the 2020 EU strategy, as summarised above. The preparation of the EU framework in parallel with the CBD agenda can also lead to the former proactively influencing the latter, giving the EU an opportunity to champion an appropriately ambitious agenda at the global level. For these reasons, EU preparations on the post-2020 framework should not wait until the global framework is finalised.

### ***Supporting International Action***

In line with advocating more fundamental systems change, the future CBD global strategic framework is expected to link closely with the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs). The EU has played an active role in that process and is committed to implementation, both within the EU and in development cooperation with partner countries. It is clear therefore that the EU’s biodiversity policy framework after 2020 will need to link closely to the SDGs and demonstrate how the EU’s action for biodiversity will contribute to them, both domestically and globally.

Biodiversity and healthy ecosystems underpin the achievement of the majority of SDGs (Figure 1) and are the dedicated focus of two of the SDGs (Goal 14 on oceans, seas and marine resources and Goal 15 on terrestrial ecosystems). These broadly align with EU biodiversity policy, with several specific targets echoing the EU’s own current objectives. For example, sustainable management and conservation of forests and mobilising and significantly increasing financial resources for biodiversity and ecosystems, are joint objectives under both regimes.

However, some SDG targets may present challenges for the EU. For example, Target 14.5 calls for conservation of at least 10% of coastal and marine areas by 2020, compared with Commission estimates that the marine Natura 2000 area represents just over 6% of the EU’s marine area today. Whilst it is foreseen that further Marine Natura 2000 sites will be designated, reaching the global

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<sup>25</sup> The CBD’s Subsidiary Body on Scientific, Technical and Technological Advice, <https://www.cbd.int/sbstta/>

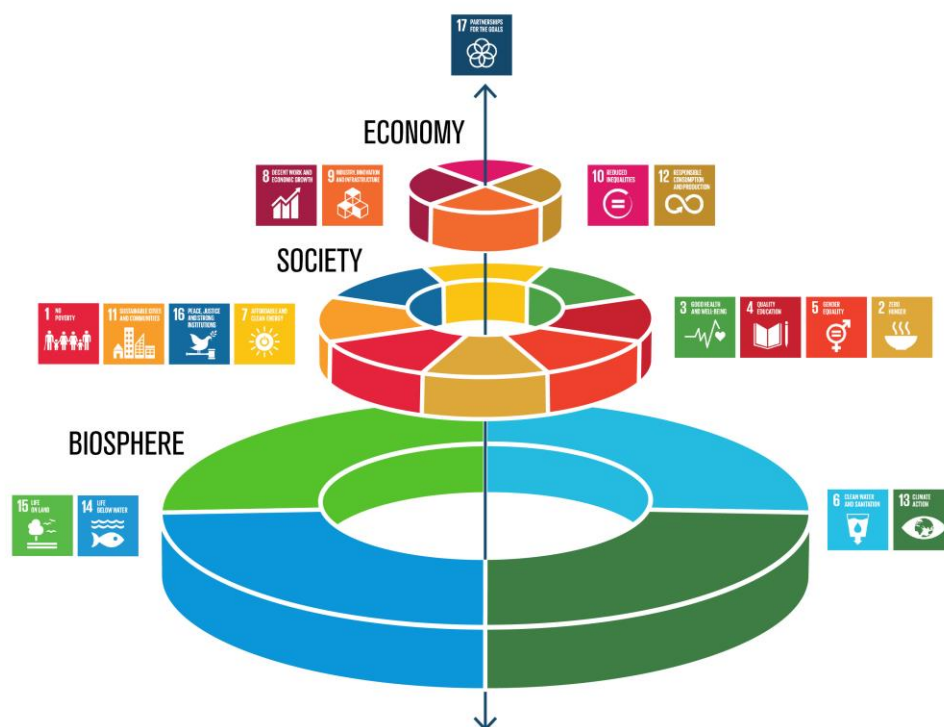
<sup>26</sup> CBD webpage on preparations for the post-2020 biodiversity framework: <https://www.cbd.int/post2020/>



target might require a considerable step up in effort. Similarly, Target 15.9 calls for integration of ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts. While much is happening across the EU in these areas, it is not clear that there is a consistent approach, or that EU level action can be justified; much of the required action will therefore have to take place at Member State level. The policy regime for EU green infrastructure will play a key role in determining EU's future endeavours in this regard (see section 3).

**Figure 1:** Societal and economic SDG dependency on those ensuring a healthy biosphere

Source: Stockholm Resilience Centre, 2016 ([link](#))



Graphics by Jennifer Lukersmith/Aspen

Clearly, biodiversity and ecosystem conservation will be important in meeting a range of SDGs at the global level (Figure 1). In the EU, evidence demonstrates the contribution of biodiversity to SDGs 3 (health and wellbeing), 6 (water), 8 (economic growth and employment), 9 (resilient infrastructure), 11 (cities), 12 (sustainable consumption and production), 13 (climate change) and 17 (global partnership). This evidence base, and its uptake in practice, is also being developed on an ongoing basis through the EU Horizon 2020 programme.

Building on the above, the EU can continue to promote the role of biodiversity and ecosystem services (e.g. nature-based solutions) as a means to support public health, food, water and environmental security, and natural hazard management, as well as biodiversity conservation and sustainable development. The EU's external policy action on environmental diplomacy and development co-operation provide the key avenues for this and should therefore continue to play an important role in the post-2020 EU regime, with the EU 2021-2027 MFF playing a key role in delivering concrete actions to support the global biodiversity agenda in third countries. Stepping up existing efforts is needed as, according to the mid-term review of EU Biodiversity Strategy, only 5% of the national or regional programmes for EU partner countries include biodiversity as a specific priority sector for cooperation.

The EU has been a significant player in the global biodiversity agenda in recent years. However, the increasing prominence of growing nations such as China and India, as well as changing relationships with the US and other nations, risk diminishing the EU's influence internationally, as well as bringing

new threats to biodiversity through economic growth and changing patterns of trade and development. This imposes increasing challenges on the EU in its attempts to tackle global biodiversity loss and indicates that dedicated action is needed to further develop EU's biodiversity diplomacy (e.g. following in the footsteps of EU climate and water diplomacy). Securing funding under the 2021 – 2027 MFF for such efforts is crucial. For example, the EU Partnership Instrument has proved to be a very useful mechanism to finance biodiversity related dialogues between EU and third countries and it would therefore be important to ensure the continued existence of such a mechanism in the new EU funding framework.

Maximising the EU's influence is likely to depend on both building on areas of strength and identifying new strategic areas of interest where leadership or support is needed. The former include, for example, the EU's outermost regions (ORs), overseas territories (OTs) and ex colonies, its prominent role in areas such as ocean governance and the illegal wildlife trade, and its relationships in trade and development (see below). For example, the ORs and OTs can function as pioneering examples to promote biodiversity conservation as part of green economy<sup>27</sup>, while the drafting and implementation of EU trade agreements and their sustainable development chapters could pave a way for a more ambitious regime on avoiding negative impacts of trade on biodiversity (see also below). As for the new strategic areas of global importance, the EU has indicated an increasing interest in climate and environmental security, including the role of ecosystems in underpinning them (see Think2030 paper by Kettunen et al.). Consequently, it would seem highly relevant for the post-2020 biodiversity strategy to include this as one of the areas for EU action.

### ***Reducing the EU's global footprint on biodiversity***

As well as depleting biodiversity within its territories, the EU continues to contribute to global biodiversity loss through its consumption and trade<sup>28</sup>. While there has been some progress in recent years in developing initiatives for sustainable consumption and production, resource efficiency and the circular economy, with a view to reduce EU's domestic and global footprint, biodiversity does not feature prominently within them.

Action 17 of the 2020 Biodiversity Strategy sought to address the indirect drivers of EU loss, but there has been little concrete progress in this area. For example, the midterm review of the EU Biodiversity Strategy reveals that only three of the roughly forty-five preferential trade agreements in place have specific articles on biodiversity (Colombia/Peru, Moldova and Georgia)<sup>29</sup>. A greater focus on biodiversity impacts within trade agreements is also required, including a stipulation that Sustainability Impact Assessments include comprehensive, consistent and robust assessments of potential impacts on biodiversity<sup>30</sup>. Both possible negative effects on and sustainable trade-related opportunities linked to biodiversity (e.g. biodiversity friendly products) should be taken into account.

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<sup>27</sup> Ten Brink, P., Kettunen, M., Watkins, E. (2017) Green and Circular Economy in the Outermost Regions., <https://ieep.eu/publications/green-economy/green-and-circular-economy-in-the-outermost-regions>

<sup>28</sup> Galli, A., Wackernagel, M., Iha, K. et al. (2013). Ecological Footprint: Implications for biodiversity. Biological Conservation. DOI: 10.1016/j.biocon.2013.10.019

<sup>29</sup> Kettunen, M. (2018) Biodiversity: Strong Policy Objectives Challenged by Sectoral Integration, in Adele et al. (eds) EU External Environmental Policy: Rules, Regulation and Governance beyond Borders, Springer Nature (Plagrave Macmillan)

<sup>30</sup> Onno Kuik, Marianne Kettunen, Jasper van Vliet, Alejandro Colsa and Andrea Illes (2018) Trade Liberalisation and Biodiversity Scoping Study on Methodologies and Indicators to Assess the Impact of Trade Liberalisation on Biodiversity (Ecosystems and Ecosystem Services). Final report for the European Commission (DG ENV) (ENV.F.1/FRA/2014/0063), Institute for Environmental Studies (IVM/Vrije Universiteit), Amsterdam & Institute for European Policy (IEEP), Brussels/ London

Trade agreements should also systematically include action in priority areas such as combating the illegal wildlife trade and promoting the sustainable production of commodities such as palm oil.

Furthermore, much more needs to be done to raise the awareness of consumers of the impacts of their consumption patterns on biodiversity, and to develop ways to encourage markets to work for nature rather than against it.

### ***Linking the biodiversity and climate agendas***

Climate change poses an ongoing threat to biodiversity, threatening species and habitats across Europe and internationally. Biodiversity conservation strategies across the globe need to enhance the resilience of protected areas and ecological networks, which have the potential to provide climate refugia and/or facilitate movements in response to climate change, and to recognise the need to adapt to changes in ecosystem functions and processes.

At the same time there is potential to strengthen the synergies between biodiversity and climate action<sup>31</sup>. Biodiversity and natural capital have a strong role to play in climate mitigation (e.g. enhancing carbon sequestration through ecosystem restoration) and adaptation (e.g. enhancing the role of ecosystems in flood management). The international climate agenda provides strong momentum on which efforts to halt biodiversity loss can build; making a clear case that biodiversity action can contribute to EU and international commitments under the Paris Agreement will help to strengthen and broaden the case for action to halt biodiversity loss.

Biodiversity loss ranks alongside climate change as one of the greatest environmental threats facing humanity, but has so far failed to attract the same level of political commitment to action. There is a need to find concrete ways to increase the prominence of biodiversity within the climate agenda and to step up actions that deliver against both biodiversity and climate commitments. The discussion on the EU's post 2020 policy could usefully focus on exploring the climate-biodiversity synergies as part of the EU external action, advancing the debate on this also in the context of the CBD agenda setting.

## **4.6 Supporting EU action through better knowledge and evidence**

Action in this area requires:

- Strengthening the evidence base relating to biodiversity and ecosystem services;
- Investing in effective and sustainable monitoring systems; and
- “Horizon scanning” to identify emerging threats and challenges and policy responses to them.

### ***Strengthening the evidence base***

Further increasing knowledge of the drivers of biodiversity loss, the value of natural capital and ecosystem services, and the most effective and efficient policy responses, would help widen engagement and increase the effectiveness of supporting actions. We are continuing to learn more about biodiversity decline and its causes, but our knowledge is still incomplete. It has become evident that some of the problems affecting biodiversity are worse than previously thought, such as the steep declines in pollinators and other invertebrates. This suggests that we do not yet fully understand what needs to be done to reverse biodiversity decline, and that our approach to the problem needs to evolve as new evidence becomes available. Efforts to halt biodiversity loss continue to be surrounded by debates about how to manage conflicting priorities (such as the pros and cons of land-sharing versus land sparing) and how best to allocate scarce resources to biodiversity actions. We therefore need to continue to strengthen the evidence base, to improve our understanding about the most

<sup>31</sup> CBD webpage on climate change and biodiversity: <https://www.cbd.int/climate/>

effective and efficient measures and actions, and to improve monitoring and evaluation of implementation and impact. An important priority in achieving this should be further improving EU support for integrated/meta-assessments and investments in the science-policy interface.

### ***Investing in effective and sustainable monitoring systems***

Understanding trends in species and habitats is critical to evaluate the success of conservation measures and to identify new priorities. We are making progress in developing effective monitoring systems, aided by the efforts of professionals and volunteers, and by technological advances, including the digitalisation of data. However, more investment is required to provide the tools required, and to increase capacity to monitor particular species groups, such as pollinators. Even for popular species groups such as birds, where official monitoring is enhanced through the efforts of many volunteers, funding is still insufficient in its scale and security to ensure the long-term data collection required. Addressing these problems requires increased funding and a more strategic approach to public investment.

### ***Horizon Scanning***

Our knowledge of the threats, pressures and challenges facing biodiversity in the EU continues to evolve. For example, we do not fully understand the impacts that agro-chemicals are having on biodiversity, as evidenced by declines in pollinators and invertebrates more widely. There are also concerns about the effects of veterinary medicines (such as the threats posed by increasing use of diclofenac on vultures) and antibiotics. Efforts to reduce biodiversity loss to 2030 and beyond will need to include vigilance to emerging threats and problems and the identification of possible response mechanisms. Such a “horizon-scanning” exercise will be important in informing future action to halt and reverse biodiversity loss.

## Annex 1 The principal threats to biodiversity and ecosystem services in the EU, the legal instruments addressing them and their implementation problems and gaps

Main threats	Most important existing instruments	Gaps and weaknesses in the instruments	Implementation issues
Agricultural abandonment or intensification of semi-natural grasslands and other semi natural habitats	BHD, CAP Natural Handicap payments, designation of Environmentally Sensitive Permanent Grasslands, RDP Agri-environment climate schemes	Natural Handicap Payments not targeted to priority areas and include no management conditions; Agri-environment schemes are voluntary and payments based on income foregone – so weak incentive	Weak enforcement of grassland protection in N2k in some MS. ESPG measure applied to limited degree in Natura 2000 and minimally outside; Agri-environment schemes are underfunded, and often not targeted to Natura 2000 and other semi-natural habitats, low take up in some MS
Intensive management of arable and improved grasslands, and loss of marginal non-farmed habitats	CAP cross-compliance, Pillar 1 greening measures: permanent grassland ratio, Ecological Focus Areas; RDP Agri-environment climate schemes	Permanent grassland definition is broad, ratio can be applied at nationally; some EFA options of limited biodiversity value; Agri-environment weaknesses as above	Permanent grassland ratio often applied nationally. Leading to large local losses. Most MS and farmer chose EFA options of limited biodiversity value. Agri-environment schemes are underfunded, and scheme designs on intensive / improved grassland often of low ambition.
Logging of old-growth forest and/or intensive forest management	BHD, RDP forest measures	The main protection is through the BHD as the Forest Action Plan is not legally binding (and has conflicting objectives and measures without clear priority setting) so biodiversity in forest lacking BHD habitats and species are very weakly protected	RDP forest measures are poorly used by some MS partly because forests managed by public entities are not eligible for funding, and private forest owners do not apply for funds, due to insufficient incentives, administrative barriers and lack of awareness; in other cases national funding is prioritised
Pollution of rivers and lakes, and in-river and marginal habitat changes; river impoundments for navigation and/or hydropower	BHD & WFD	Exemption clauses in WFD are too broad and need to be redefined. Countries do not apply exemptions uniformly. While the CIS framework is quite technical, the solutions required should also consider political implications.	Difficulty in the data collection, design and implementation of economic methodologies such as Cost-Benefit Analyses used as justification of exemptions. An open debate is needed on whether or not water protection should be prioritized over other policies, particularly the current CAP.
Airborne eutrophication of sensitive habitats due to N deposition	NECD	Ammonia ceilings will not address all N deposition pressures	Next national programmes due in 2019 – will then be able to determine if national measures are

		Time for implementation (to 2030) allows pressures to continue	likely to deliver targets. In some areas there is likely to be a compliance challenge.
Marine pollution	MSFD, WFD, ND, UWWTD, IED	The principle point sources are largely addressed in EU policy. Diffuse sources are in theory covered, but in practice there is a gap. The challenge, however, is in setting clear marine goals against which measures are adopted (under WFD, MSFD). Marine litter is a further issue where policies are being explored but a coherent approach is lacking.	There are significant implementation challenges for diffuse sources of pollution. The policy framework should lead to action on this, but MS are reluctant to introduce the necessary measures.
Marine seabed impacts from fishing and extractive industries	BHD, MSFD, CFP, MSP Directive	Lack of integration between these pieces of legislation, in particular the CFP. Lack of definitions, e.g. what constitutes 'adequate', 'coherent' and 'representative' (from MSFD Art 13.4) for European seas in practical, scientific and legal terms.	Major gaps/delays in implementation of management measures in marine Natura 2000. Existing marine Natura 2000 network not ecologically representative. Great majority of marine Natura 2000 designated within 12nm, omitting deep sea habitats. Significant lack of data about seabed impacts of different types of fishing and other industries; similar lack of mapping of seafloor habitats and species distribution. For conservation measures in waters of their sovereignty or jurisdiction, a MS must first consult other MS with fisheries interest in those waters, this might delay or deter necessary designations. Some confusion/ regulatory overlap between spatial measures required in MSFD (Art. 13.4) and ongoing implementation of marine Natura 2000. Emerging findings of a lack of acknowledgement of the environmental pillar of the MSP Directive in ongoing implementation.
Habitat loss and fragmentation from urban expansion, built infrastructure, & extractive industries	SEA, EIA and BHD protection of Natura 2000	Protection of areas outside N2k is weak, as in most MS no requirement for no net loss.	Implementation variable across the EU
Invasive Alien species	IAS Regulation	Lack of dedicated funding mechanism.	Current list holds 49 species still excluding a significant number of

		Risk assessments still being under development. Legislation provides little means and guidance as to how to apply it. Effective, integrated management of IAS at the EU level is needed to tackle this issue in the long-term.	particularly harmful species in particular in the marine environment. Moreover, most of these species are already widespread while IAS regulation stipulates that focus should be on prevention. Major MS delays in putting in place monitoring systems, hampered by a lack of funding. Analyses of future damage and wellbeing / social values need to be further developed. Although policy recommendations are available to MS, success depends on their means and willingness to act <sup>32</sup> .
Unsustainable exploitation / sport hunting & fishing	BHD & CFP	Comprehensive measures for birds, but only for selected species in the HD. Lack of common monitoring and reporting on recreational fishing. Recreational fisheries should be conducted in a manner that is compatible with the CFP, however, no further provisions or direct measures apply.	Generally applied well and recoveries in many of depleted populations have occurred, but some misuse of derogations and weak enforcement in some MS. Recreational fishing is increasingly recognised as having a significant negative impact on certain marine species, but lack of data makes evaluations very difficult.
Disturbance due to recreation etc.	BHD	Not directly addressed, but in theory covered by overall objectives to achieve favourable status, and requirement to avoid damaging projects in Natura 2000 sites	Threats from this are increasing, yet they tend to be overlooked, and therefore actions to address this tend to be incomplete and weak
Climate change	Above instruments	Most relevant instruments do not directly address climate change, but many measures indirectly have the potential to support adaptation, and contribute to mitigation	Implementation gaps identified above also constrain climate related actions, especially in relation to increasing ecosystem resilience outside the protected area network

<sup>32</sup> IEEP (2017) *Is the EU's new Invasive Alien Species Regulation set for success?*, <https://ieep.eu/news/is-the-eu-s-new-invasive-alien-species-regulation-set-for-success>

